Claim Amendments

Cancel all claims of record and substitute new claims as follows:

Claims:

1-30 (canceled)

40. (new): A hand manipulated data apparatus for entering commands to a machine, comprising:
    a. a sensor(s) for accepting hand manipulations, said sensor(s) having a signal output,
    b. a electronics interface for converting the signal output from said sensor(s) to a format acceptable to said machine,
    c. attaching means for affixing said sensor(s) to the human hand(s) in combination with said electronics interface,
    d. said attaching means further positioning said sensor(s) to be manipulated by the opposing finger(s) and / or thumb of the same hand that said sensor(s) are mounted on, whereby said sensor(s) are only activated by a deliberate effort of the user,
    e. said attaching means further positioning said sensor(s) so as to avoid accidental sensor activation, whereby a user can hold a glass and perform other standard hand operations without accidentally activating a sensor(s).
41. (new): The hand manipulated data apparatus of Claim 40 wherein said attaching means is further ergonomically shaped to expose the finger and / or thumb pads so as to preserve the tactile and griping qualities of the human hand.
42. (new): The hand manipulated data apparatus of Claim 40 wherein said attachment means is further ergonomically shaped, and said sensor(s) are further placed on said attachment means to facilitate universal right or left hand operation and / or universal finger or thumb operation, whereby the user can easily remove the device from one finger, thumb, or hand, and relocate the device on a different finger, thumb, or hand.
43. (new): The hand manipulated data apparatus of Claim 40 wherein said attachment means further positions a part or all of said sensor(s) in a relocatable fashion whereby a part or all of said sensor(s) can be repositioned on said attachment means for universal right or left-hand operation, and / or universal thumb or finger operation.
44. (new): The hand manipulated data apparatus of Claim 40 wherein said attachment means further positions a part or all of said sensor(s) on said attachment means in an adjustable

fashion whereby the user can adjust and / or change the location(s) of a part or all of said sensor(s) to obtain customized sensor placement.

45. (new): The hand manipulated data apparatus of Claim 40 wherein said attachment means further includes a non-slip interior surface for securing said attachment means onto the hand whereby said attachment means will not twist and turn while said sensor(s) are being manipulated.

46. (new): The hand manipulated data apparatus of Claim 40 wherein said attachment means further includes a adjustable conforming means for securing said attachment means to a wide range of finger shapes and sizes, whereby a single apparatus is capable of fitting a wide range of users.

47. (new): The hand manipulated data apparatus of Claim 40 wherein said electronics interface is in a separate enclosure from said attachment means, and further includes a transferring means for conveying said sensor output to said electronics interface, whereby said attachment means for mounting said sensor(s) can be smaller in size.

48. (new): The hand manipulated data apparatus of Claim 47 wherein said transferring means comprises a cable structure that is routed between the base knuckles of the hand in a captive fashion, whereby the cable will not slip off the top of the hand, and the need for additional cable hold down straps is minimized or eliminated.

49. (new): The hand manipulated data apparatus of Claim 47 wherein said transferring means is a cable structure that exits said attachment means in a manner that facilitates universal right or left hand operation, and / or universal thumb or finger operation.

50. (new): The hand manipulated data apparatus of Claim 47 wherein said transferring means is a cable structure that is retractable to and extendable from said electronics interface enclosure, whereby said cable is maintained in a gently snug fashion.

51. (new): The hand manipulated data apparatus of Claim 47 wherein said electronics interface enclosure further includes a relocating means for repositioning said attachment means, whereby said attachment means can be removed and docked onto or into said relocating means.

52. (new): The hand manipulated data apparatus of Claim 51 further including a cable retraction and extension means, wherein said transferring means is a cable structure that is retractable to and extendable from said relocating means, whereby said cable is maintained in a gently snug fashion when said sensor(s) is deployed, and the cable is neatly withdrawn when said attachment means is retracted.

53. (new): A method for detecting hand manipulations and entering the corresponding commands to a machine, comprising the steps of:

    a. acquiring hand manipulation information from one or more sensor(s),

b. attaching said sensor(s) to the human hand(s) so that said sensor(s) can be manipulated by the opposing finger(s) and / or thumb of the same hand that said sensor(s) are mounted on, whereby said sensor(s) are only activated by a deliberate effort of the user,
c. further attaching said sensor(s) so as to avoid accidental sensor activation, whereby a user can hold a glass and perform other standard hand related duties without accidentally activating a sensor(s),
d. outputting signals from said sensor(s) that correspond to said hand manipulations,
e. converting the output from said sensor(s) to a to a format that is acceptable to said machine,
f. delivering said formatted signals to said machine.

54. (new): The method of Claim 53 wherein said step of attaching purposely exposes the finger and / or thumb pads so as to preserve the tactile and griping qualities of the human hand.
55. (new): The method of Claim 53 wherein said step of attaching further places said sensor(s) on the human hand(s) to facilitate universal right or left hand operation and / or universal finger or thumb operation, whereby the user can easily remove the device from one finger, thumb, or hand, and relocate the device on a different finger, thumb, or hand.
56. (new): The method of Claim 53 wherein said step of attaching further positions a part or all of said sensor(s) in a relocatable fashion whereby a part or all of said sensor(s) can be repositioned on the human hand(s) for universal right or left-hand operation, and / or universal thumb or finger operation.
57. (new): The method of Claim 53 wherein said step of attaching further positions a part or all of said sensor(s) on the human hand(s) in an adjustable fashion whereby the user can adjust and / or change the location(s) of a part or all of said sensor(s) to obtain customized sensor placement.
58. (new): The method of Claim 53 wherein said step of attaching further provides a non-slip means for securing said sensor(s) onto the hand(s) whereby said sensor(s) will not twist and turn while said sensor(s) are being manipulated.
59. (new): The method of Claim 53 wherein said step of attaching further includes a adjustable conforming means for securing said sensor(s) to a wide range of finger shapes and sizes.
60. (new): The method of Claim 53 wherein said step of attaching further includes a relocating means for removing said sensor(s) from their operating position, and repositioning said sensor(s) for storage, whereby said sensor(s) can be removed and docked onto or into said relocating means.
61. (new): The method of Claim 53 wherein said step of converting is physically removed from said sensor(s), this step further including a transferring of said sensor output to said step of converting, whereby said sensor attaching can be smaller in size.

62. (new): The method of Claim 62 wherein said transferring comprises a cable structure that is routed between the base knuckles of the hand in a captive fashion, whereby the cable will not slip off the top of the hand, and additional steps of securing the cable are minimized or eliminated.
63. (new): The method of Claim 62 wherein said step of transferring includes a cable structure that exits said sensor(s) in a manner that facilitates universal right or left hand operation, and / or universal thumb or finger operation.
64. (new): The method of Claim 62 wherein said step of transferring includes a cable structure that is further maintained in a gently snug fashion.
65. (new): The method of Claim 62 wherein said step of transferring includes a cable structure that can be further repositioned for convenient use, and storage.

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